

CLAIMS

What is claimed is:

- 1 1. A method of determining a client ID comprising:
 - 2 receiving a request from a first user terminal; and
 - 3 extracting a client ID from the request, wherein the client ID includes the
 - 4 client ID for the first user terminal.
- 1 2. The method of claim 1 wherein the request is received in a front-end
2 processor.
- 1 3. The method of claim 1 wherein the request includes a WTLS handshake and
2 wherein extracting a client ID for the first user terminal includes:
 - 3 extracting a session ID from the WTLS handshake; and
 - 4 determining the client ID from the session ID.
- 1 4. The method of claim 3 wherein the WTLS handshake includes a WTLS full
2 handshake.
- 1 5. The method of claim 3 wherein the WTLS handshake includes a WTLS
2 abbreviated handshake.

1 6. The method of claim 1 wherein the request includes a WSP connect and
2 wherein extracting a client ID for the first user terminal includes extracting the client
3 ID from the WSP connect.

1 7. The method of claim 1 wherein the request includes a WSP resume and
2 wherein extracting a client ID for the first user terminal includes extracting the client
3 ID from the WSP resume.

1 8. A method of balancing a data load on a network comprising:
2 receiving a request from a client;
3 determining a first source address and a first source port from the request;
4 remapping the first source address of the request to a front-end processor
5 source address;
6 remapping the first source port of the request to an front-end processor
7 source port; and
8 sending the remapped request to an origin server.

1 9. The method of claim 8, wherein determining a first source address and a first
2 source port from the request includes:
3 receiving a WSP connect; and
4 extracting a client ID from the WSP connect.

1 10. The method of claim 8, wherein determining a first source address and a first
2 source port from the request includes:
3 receiving a WSP resume; and
4 extracting a client ID from the WSP resume.

1 11. The method of claim 8, wherein determining a first source address and a first
2 source port from the request includes:
3 receiving a abbreviated WTLS handshake;
4 extracting a session ID from the abbreviated WTLS handshake; and
5 determining the client ID from the session ID.

1 12. The method of claim 8, wherein determining a first source address and a first
2 source port from the request includes:
3 receiving a full WTLS handshake;
4 extracting a session ID from the full WTLS handshake; and
5 determining the client ID from the session ID.

1 13. The method of claim 8, wherein remapping the first source address of the
2 request to a front-end processor source address includes:
3 storing the first source address and the corresponding front-end processor
4 source address; and
5 storing the first source port and the corresponding front-end processor source
6 port.

1 14. The method of claim 13, wherein storing includes storing the corresponding
2 source addresses and the corresponding source ports in a table.

1 15. The method of claim 8, wherein:
2 if the request includes at least one of a group consisting of a WSP connect, a
3 WSP resume, and a WTLS handshake, then:
4 assigning the client to a selected agent of a plurality of agents, such that a
5 data load is substantially balanced across the plurality of agents.

1 16. The method of claim 8, further comprising:
2 receiving a response from the origin server, wherein the response is
3 responding to the remapped request and wherein the response is received in the
4 front-end processor;
5 remapping the origin server response source address to the front-end
6 processor source address;
7 remapping the origin server response source port to the front-end processor
8 source port; and
9 sending the remapped response to the client.

1 17. The method of claim 8, wherein remapping the first source address of the
2 request to the front-end processor source address includes remapping the first source

3 address of the request to a selected agent source address wherein the selected agent
4 is one of a plurality of agents; and
5 wherein remapping the first source port of the request to the front-end
6 processor source port includes remapping the first source port of the request to the
7 selected agent source port.

1 18. The method of claim 8, wherein the network includes a wireless network.

1 19. The method of claim 8, wherein the client is a mobile user terminal.

1 20. A method of assigning an agent comprising:
2 receiving a response from an origin server to a request from a first mobile
3 user terminal, wherein the first mobile user terminal and the origin server are
4 coupled by a circuit switched network; and
5 confirming an IP address for the first mobile user terminal including:
6 determining the client ID of the first mobile user terminal; and
7 comparing a current IP address assigned to the first mobile user
8 terminal to the destination address of the response.

1 21. The method of claim 20 further comprising:
2 updating the destination address of the response if the destination address of
3 the response is not the same as the current IP address assigned to the first mobile
4 user terminal.

1 22. The method of claim 20 wherein the IP address is confirmed by a front-end
2 processor.

1 23. The method of claim 20 wherein determining the client ID of the first mobile
2 user terminal includes extracting the client ID from the response.

1 24. The method of claim 23 wherein extracting the client ID includes extracting
2 the client ID from at least one of a group consisting of a WSP connect, a WSP
3 resume, and a WTLS handshake.

1 25. A system for determining a client ID comprising
2 a processor;
3 a storage facility coupled to the processor and containing instructions
4 executable by the processor which configure the processing system to
5 receive a request from a first user terminal; and
6 extract a client ID from the request, wherein the client ID includes the
7 client ID for the first user terminal; and
8 a network coupled to the processor.

1 26. The system of claim 25 further comprising:
2 a front-end processor and wherein the request is received in the front-end
3 processor.

1 27. The system of claim 25 wherein the request includes at least one of a group
2 consisting of a WTLS handshake, a WSP connect, and a WSP resume.

1 28. A system for balancing a data load on a network comprising
2 a processor;
3 a network coupled to the processor;
4 a front-end processor coupled to the network;
5 a client coupled to the network; and
6 a storage facility coupled to the processor and containing instructions
7 executable by the processor which configure the processing system to:
8 receive a request from the client;
9 determine a first source address and a first source port from the
10 request;
11 remap the first source address of the request to a front-end processor
12 source address;
13 remap the first source port of the request to an front-end processor
14 source port; and
15 send the remapped request to an origin server.

1 29. The system of claim 28 wherein the determine a first source address and a
2 first source port from the request includes:

3 receiving at least one of a group consisting of a WTLS handshake, a WSP
4 connect, and a WSP resume.

1 30. The system of claim 28 wherein the determine a first source address and a
2 first source port from the request includes:

3 receiving at least one of a group consisting of a WTLS handshake, a WSP
4 connect, and a WSP resume.

1 31. The system of claim 28 wherein the remap the first source address of the
2 request to a front-end processor source address includes:

3 storing the first source address and the corresponding front-end processor
4 source address; and

5 storing the first source port and the corresponding front-end processor source
6 port.

1 32. The system of claim 28 wherein the storage facility coupled to the processor
2 and further contains instructions executable by the processor which configure the
3 processing system to:

4 receive a response from the origin server, wherein the response is responding
5 to the remapped request and wherein the response is received in the front-end
6 processor;

7 remap the origin server response source address to the front-end processor
8 source address;

9 remap the origin server response source port to the front-end processor
10 source port; and
11 send the remapped response to the client.

1 33. The system of claim 28 wherein the remap the first source address of the
2 request to a front-end processor source address includes remapping the first source
3 address of the request to a selected agent source address wherein the selected agent
4 is one of a plurality of agents; and
5 wherein remapping the first source port of the request to the front-end
6 processor source port includes remapping the first source port of the request to the
7 selected agent source port.

1 34. The system of claim 28, wherein the network includes a wireless network.

1 35. The system of claim 28, wherein the client is a mobile user terminal.

1 36. A system for assigning an agent comprising:
2 a processor;
3 a network coupled to the processor;
4 a front-end processor coupled to the network;
5 a client coupled to the network; and
6 a storage facility coupled to the processor and containing instructions
7 executable by the processor which configure the processing system to

8 receive a response from an origin server to a request from a first
9 mobile user terminal, wherein the first mobile user terminal and the origin
10 server are coupled by a circuit switched network; and
11 confirm an IP address for the first mobile user terminal including:
12 determine the client ID of the first mobile user terminal; and
13 compare a current IP address assigned to the first mobile user
14 terminal to the destination address of the response.

1 37. The system of claim 36 wherein the storage facility coupled to the processor
2 and further contains instructions executable by the processor which configure the
3 processing system to:
4 update the destination address of the response if the destination address of
5 the response is not the same as the current IP address assigned to the first mobile
6 user terminal.

1 38. The system of claim 36 wherein the IP address is confirmed by the front-end
2 processor.

1 39. The system of claim 36 wherein the determine the client ID of the first
2 mobile user terminal includes extracting the client ID from the response.

1 40. The system of claim 39 wherein extracting the client ID includes extracting
2 the client ID from at least one of a group consisting of a WSP connect, a WSP
3 resume, and a WTLS handshake.

1 41. A system for determining a client ID comprising:
2 a means for receiving a request from a first user terminal; and
3 a means for extracting a client ID from the request, wherein the client ID
4 includes the client ID for the first user terminal.

1 42. A system for balancing a data load on a network comprising:
2 a means for receiving a request from a client;
3 a means for determining a first source address and a first source port from the
4 request;
5 a means for remapping the first source address of the request to a front-end
6 processor source address;
7 a means for remapping the first source port of the request to an front-end
8 processor source port; and
9 a means for sending the remapped request to an origin server.

1 43. A system for assigning an agent comprising:
2 a means for receiving a response from an origin server to a request from a
3 first mobile user terminal, wherein the first mobile user terminal and the origin
4 server are coupled by a circuit switched network; and

5 a means for confirming an IP address for the first mobile user terminal
6 including:
7 a means for determining the client ID of the first mobile user
8 terminal; and
9 a means for comparing a current IP address assigned to the first
10 mobile user terminal to the destination address of the response.